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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,793	07/31/2003	Chun-Seung Yang	45358	7877

7590

10/28/2005

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EXAMINER

MORRISON, THOMAS A

ART UNIT

PAPER NUMBER

3653

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/630,793		YANG, CHUN-SEUNG	
	Examiner		Art Unit	
	Thomas A. Morrison		3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3-8, 10-11 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Johnson et al. In particular, Johnson et al. discloses all of the limitations of claims 1, 3-8, 10-11 and 14-16.

Regarding claim 1, Figs. 1-4 show a paper registration apparatus including a lower guide plate (12) supporting the sheet of paper thereon and having a groove (18) formed at one side;

a side wall guide (38) vertically installed at the side of the groove (18) of the lower guide plate (12) parallel to a direction of a paper transfer route to perform a side registration of the sheet of paper;

a duplex transfer roller (42) installed perpendicular to the direction of the paper transfer route;

an idle roller (62) installed above the duplex transfer roller (42) at a predetermined inclination angle with respect to the duplex transfer roller (42);

an idle roller rotation shaft holder (58) rotatably supporting both ends of a rotation shaft (60) of the idle roller (62);

a pressing unit (including 69) providing an elastic force to the idle roller (62) toward the duplex transfer roller (42); and

a pivot unit (including 64 and 68) **adapted to** set the inclination angle of the idle roller (62) within a predetermined range according to a type of the paper. With regard to the recitation, " for a duplex printer which performs side registration of a sheet of paper before the sheet of paper is transferred toward a feed roller to print an image on a rear side of the sheet of paper after a front side of the sheet of paper is printed", this is merely a statement of intended use. With regard to the recitation "adapted to...", it is noted that this wording does not positively recite that the paper registration apparatus actually performs the function set forth after "adapted to". Accordingly, this recitation has not been given patentable weight. It is the examiner's position that the pivot unit (including 64 and 68) of the Johnson et al. patent can be "adapted to" set the inclination angle of the idle roller within a predetermined range according to a type of paper, as set forth in claim 1. Thus, Johnson et al. meets all of the limitations of claim 1.

Regarding claim 3, column 3, lines 34-45 disclose a range of the inclination angle is substantially between 4 degrees and 9 degrees.

Regarding claim 4, column 3, lines 34-45 disclose a range of the inclination angle is substantially between 5 degrees and 8 degrees.

Regarding claim 5, Fig. 3 shows that the pivot unit (including 68) has an elastic member (68) elastically supporting one side of the idle roller rotation shaft holder (58);

an arm (including 64 and 66) extending horizontally from the idle roller rotation shaft holder (58) in a direction perpendicular to the idle roller rotation shaft (60); and
a confining unit (including 67) confining a pivot range of the arm (including 64 and 66).

Regarding claim 6, Fig. 3 shows that the confining unit (including 67) is a stopper where a slot (i.e., slot through 86 and into 67) is formed to confine a horizontal space in which the arm (including 64 and 66) is inserted and pivots.

Regarding claim 7, Fig. 3 shows that the pressing unit (including 69) has a circular column member (52) extending upward from an upper center portion of the idle roller rotation shaft (60) to be rotatably supported in a printer body (typewriter explained in Abstract); and

a spring (69) installed around an outer circumference of the circular column member (52) to press the idle roller rotation shaft holder (58) and the idle roller (62) toward the transfer roller (42), wherein the circular column member (52) is a center shaft of the rotation of the idle roller (62).

Regarding claim 8, Figs. 1-4 show a paper registration apparatus for a printer which performs side registration of a sheet of paper, the apparatus including

an idle roller (62) installed above a transfer roller (42) at a predetermined inclination angle with respect to the transfer roller (42); and

a pivot unit (including 68) adapted to set the inclination angle of the idle roller (62) within a predetermined range according to a type of the paper. With regard to the recitation "adapted to...", it is noted that this wording does not positively recite that the

paper registration apparatus actually performs the function set forth after "adapted to". Accordingly, this recitation has not been given patentable weight. It is the examiner's position that the pivot unit (including 64 and 68) of the Johnson et al. patent can be "adapted to" set the inclination angle of the idle roller within a predetermined range according to a type of paper, as set forth in claim 8. Thus, Johnson et al. meets all of the limitations of claim 8.

Regarding claim 10, column 3, lines 34-45 disclose that a range of the inclination angle is substantially between 4 degrees and 9 degrees.

Regarding claim 11, column 3, lines 34-45 disclose that a range of the inclination angle is substantially between 5 degrees and 8 degrees.

Regarding claim 14, Figs. 1-4 show a pressing unit (including 69) providing an elastic force to the idle roller (62) toward the transfer roller (42), and wherein the pressing unit further includes a circular column member (52) extending upward from an upper center portion of the idle roller rotation shaft (60) to be rotatably supported in a printer body (typewriter explained in Abstract); and

a spring (69) installed around an outer circumference of the circular column member (52) to press the idle roller rotation shaft holder (including 58) and the idle roller (62) toward the transfer roller (42), wherein the circular column member (52) is a center shaft of the rotation of the idle roller (62).

Regarding claim 15, Figs. 1-4 show a paper registration apparatus for a duplex printer which performs side registration of a sheet of paper before the sheet of paper is

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transferred toward a feed roller to print an image on a rear side of the sheet of paper after a front side of the sheet of paper is printed, the apparatus including

a lower guide plate (12) supporting the sheet of paper thereon and having a groove (18) formed at one side;

a side wall guide (38) vertically installed at the side of the groove (18) of the lower guide plate (12) parallel to a direction of a paper transfer route to perform a side registration of the sheet of paper;

a duplex transfer roller (42) installed perpendicular to the direction of the paper transfer route;

an idle roller (62) installed above the duplex transfer roller (42) at a predetermined inclination angle with respect to the duplex transfer roller (42);

an idle roller rotation shaft holder (58) rotatably supporting both ends of a rotation shaft (60) of the idle roller (62);

a pressing unit (including 69) providing an elastic force to the idle roller (62) toward the duplex transfer roller (42); and

a pivot unit (including 64 and 68) adapted to set the inclination angle of the idle roller (62) within a predetermined range according to a physical characteristic of the paper. As mentioned in the rejection of claims 1 and 8 above, the use of “adapted to...” does not positively recite that the paper registration apparatus actually performs the function set forth after “adapted to”. Accordingly, this recitation has not been given patentable weight. It is the examiner’s position that the pivot unit (including 64 and 68) of the Johnson et al. patent can be “adapted to” set the inclination angle of the idle

roller within a predetermined range according to a physical characteristic of a paper, as set forth in claim 15. As such, Johnson et al. meets all of the limitations of claim 15.

Regarding claim 16, the "adapted to" recitation has not been given any patentable weight in claim 15. Likewise, the characteristic of weight in claim 16 has not been given any patentable weight. In addition, it is the examiner's position that the pivot unit (including 64 and 68) of the Johnson et al. apparatus can be **adapted to** set the inclination angle of the idle roller within a predetermined range according to a weight of a paper.

2. Claims 1, 2, 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Baskette et al. In particular, Baskette et al. discloses all of the limitations of claims 1, 2, 8 and 9.

Regarding claim 1, Figs. 1-8 show a paper registration apparatus including
a lower guide plate (26) supporting the sheet of paper (24) thereon and having a groove (near 22) formed at one side;

a side wall guide (58) vertically installed at the side of the groove (near 22) of the lower guide plate (26) parallel to a direction of a paper transfer route to perform a side registration of the sheet of paper;

a duplex transfer roller (22) installed perpendicular to the direction of the paper transfer route;

an idle roller (16) installed above the duplex transfer roller (22) at a predetermined inclination angle with respect to the duplex transfer roller (22);

an idle roller rotation shaft holder (14) rotatably supporting both ends of a rotation shaft (18) of the idle roller (16);

a pressing unit (including 20) providing an elastic force to the idle roller (16) toward the duplex transfer roller (22); and

a pivot unit (including 34 and 80) **adapted to** set the inclination angle of the idle roller (62) within a predetermined range according to a type of the paper. The recitation regarding the duplex printer is merely a statement of intended use. With regard to the recitation "adapted to...", again, it is noted that this wording does not positively recite that the paper registration apparatus actually performs the function set forth after "adapted to". Accordingly, this recitation has not been given patentable weight. It is the examiner's position that the pivot unit (including 34 and 80) of the Baskette et al. patent can be "adapted to" set the inclination angle of the idle roller within a predetermined range according to a type of paper, as set forth in claim 1. As such, Baskette et al. meets all of the limitations of claim 1.

Regarding claim 8, Figs. 1-8 show a paper registration apparatus for a printer (Abstract) which performs side registration of a sheet of paper, the apparatus including

an idle roller (16) installed above a transfer roller (22) at a predetermined inclination angle with respect to the transfer roller (22); and

a pivot unit (including 34 and 80) adapted to set the inclination angle of the idle roller (16) within a predetermined range according to a type of the paper. Once again, the adapted to recitation has not been given any patentable weight, and it is the

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examiner's position that the pivot unit of the Baskette apparatus can be adapted to set the inclination angle, as claimed.

Regarding claims 2 and 9, Fig. 2 shows an upper guide plate (12) having a groove (30 or groove in 21) formed at a position corresponding to the groove (near 22) of the lower guide plate (26) at a position above the lower guide plate (26).guide plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baskette et al. as applied to claim 9 above, and further in view of Johnson et al. Baskette et al. shows all of the limitations of claims 12 and 13, except for the elastic member of claim 12 and the slot of claim 13. Figs. 1-8 of Baskette et al. show a registration apparatus with a pivot unit having an idle roller rotation shaft (18) and an idle roller rotation shaft holder (14); an arm (including 34 and 90) extending horizontally from the idle roller rotation shaft holder (14) in a direction perpendicular to the idle roller rotation shaft (18); and a confining unit (including 96) confining a pivot range of the arm (including 34 and 90). Such confining unit (including 96) is a stopper, but Fig. 8 does not specifically show that the confining unit (including 96) has a slot as claimed.

Johnson et al., in Figs. 1-4 shows that it is well known to provide a registration apparatus with a pivoting unit (including 68) having an elastic member (68) that supports one side of an idle roller rotation shaft holder (including 58) via an arm portion (64). This elastic member maintains the axis (60) of an idle roller (62) perpendicular with a guide wall (38). See column 4, lines 28-30. Fig. 3 of Johnson et al. also shows that it is well known to provide a registration apparatus with a confining unit (including 67) having a slot (i.e., slot through 86 and into 67) that confines a horizontal space in which an arm (including 64 and 66) is inserted and pivots. Such slot guides the movement of the arm (including 64 and 66). It would have been obvious to one of ordinary skill in the art at the time of the invention, to provide the Baskette et al. registration apparatus with an elastic member to maintain the axis of the idle roller (16) of Baskette et al. perpendicular with the guide wall (58) of Baskette et al, as taught by Johnson et al. Also, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a slot in the confining unit (including 96) of Baskette et al. to guide the movement of the arm of Baskette et al., as taught by Johnson et al.

Response to Arguments

4. Applicant's arguments filed August 8, 2005 have been fully considered but they are not persuasive. Applicant has overcome the rejections under 35 U.S.C. 112, second paragraph.

Regarding the prior art rejections under 35 U.S.C. 102(b) in view of the Johnson patent, applicant argues that Johnson has no mechanism to alter the inclination angle of

the idle roller based on the type of paper. Also, applicant argues that the Johnson device is incapable of altering the angle of inclination based on the type of paper.

Regarding the prior art rejection under 35 U.S.C. 102(b) in view of the Baskette patent, applicant argues that Baskette fails to teach a system for setting the angle of inclination of an idle roller based on a type of paper.

Regarding the prior art rejection of claims 12 and 13, applicant basically argues that the combination of Baskette and Johnson does not teach the limitations of claim 8 or its dependent claims 12-13.

Regarding the new claims 15 and 16, applicant argues that these claims recite a paper registration apparatus comprising a pivot unit adapted to set the inclination angle of the idle roller within a predetermined range according to a physical characteristic of the paper, with claim 16 specifying weight as the physical characteristic. Applicant argues that neither Johnson nor Baskette teach or suggest such a system.

In response, it is noted that independent claims 1, 8 and 15 all recite "adapted to", followed by functional language. For example, independent claim 1 recites a pivot unit adapted to set the inclination angle of the idle roller within a predetermined range according to a type of the paper. It is the examiner's position that the functions recited in claims 1, 8 and 15 after the terms "adapted to" are not positively claimed limitations in claims 1, 8 and 15 and their dependent claims. Accordingly, these recitations have not been given any patentable weight.

Also, it is the examiner's position that the structure of the pivot unit (including 64 and 68) of the Johnson patent is similar to the pivot unit of the instant application, and

the pivot unit of the Johnson patent can be "adapted to" set the inclination angle of the idle roller within a predetermined range according to a type of paper or some characteristic of a paper, as claimed. In addition, it is the examiner's position that the pivot unit (including 34 and 80) of the Baskette et al. patent can be "adapted to" set the inclination angle of the idle roller within a predetermined range according to a type of paper, as claimed. Thus, the prior art rejections have been repeated and described in greater detail.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on (571) 272-6944. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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